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CONFIRMATION NO. ATTORNEY DOCKET NO FIRST NAMED INVENTOR APPLICATION NO. FILING DATE 3862 033275-316 12/05/2001 Alexander Beeck 10/002,141 EXAMINER 06/21/2004 7590 VERDIER, CHRISTOPHER M Robert S. Swecker BURNS, DOANE, SWECKER & MATHIS, L.L.P. PAPER NUMBER ART UNIT P.O. Box 1404 3745

Alexandria, VA 22313-1404

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
Office Action Summary	10/002,141	BEECK ET AL.	
	Examiner	Art Unit	
	Christopher Verdier	3745	
The MAILING DATE of this communication apperiod for Reply  A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION.	Y IS SET TO EXPIRE ₫ MG	ONTH(S) FROM	
<ul> <li>Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.</li> <li>If the period for reply specified above is less than thirty (30) days, a replication.</li> <li>If NO period for reply is specified above, the maximum statutory period.</li> <li>Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).</li> </ul>	ly within the statutory minimum of thirt will apply and will expire SIX (6) MON	r (30) days will be considered timely. FHS from the mailing date of this communication. ANDONED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on 03.	<u>lune 2004</u> .		
<b>=</b> 4/ <b>-</b> 3			
3) Since this application is in condition for allows			
closed in accordance with the practice under	Ex parte Quayle, 1935 C.D	. 11, 453 O.G. 213.	
Disposition of Claims			
4) Claim(s) 1-5 is/are pending in the application.			
4a) Of the above claim(s) is/are withdrawn from consideration.			
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1-5</u> is/are rejected.			
7) Claim(s) is/are objected to.	or election requirement		
8) Claim(s) are subject to restriction and/	or election requirement.		
Application Papers			
9)☐ The specification is objected to by the Examir			
10)⊠ The drawing(s) filed on <u>03 December 2003</u> is/are: a) accepted or b) objected to by the Examiner.			
Applicant may not request that any objection to th			
Replacement drawing sheet(s) including the corre	ction is required if the drawing Examiner. Note the attache	d Office Action or form PTO-152.	
Priority under 35 U.S.C. § 119			
12)⊠ Acknowledgment is made of a claim for foreig	un oriority under 35 H S C i	\$ 119(a)-(d) or (f)	
a)⊠ All b) Some * c) None of:		3 113(a) (d) 31 (l).	
<ul> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> </ul>			
<ul><li>2. Certified copies of the priority docume</li><li>3. Copies of the certified copies of the priority docume</li></ul>			
application from the International Bure		ū	
* See the attached detailed Office action for a li		received.	
Attachment(s)			
1) Notice of References Cited (PTO-892)		Summary (PTO-413)	
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)		s)/Mail Date Informal Patent Application (PTO-152)	
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 Paper No(s)/Mail Date	6) Other:	• • • • • • • • • • • • • • • • • • • •	

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## Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 3, 2004 has been entered.

Applicants' Amendment dated June 3, 2004 has been carefully considered. Claims 1-5 are pending. Applicants' arguments that amended independent claim 1 defines over Cederwall 4,668,162 and German Patent 198 01 804 because neither of these references discloses that the inspection aperture is arranged essentially in a direction tangentially to the curved flow section curvature of the cooling channel have been considered and are persuasive. However, the pending claims are subject to the grounds of rejection set forth later below, necessitated by the newly added limitations to claim 1.

## Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-2, 3/1, 3/2, 5/3/1, and 5/3/2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohtomo 4,992,026 (figures 1-2). Note the component 10 of a fluid flow machine, comprising plural cooling channels 34, 36, 40 for passage of a cooling medium, with the cooling channels comprising at least one curved flow section 36/40 adjacent the unnumbered blade platform, with an inspection aperture 38 through which an inspection of the interior of the component is made possible, with the inspection aperture being arranged essentially in a direction tangentially to the curved flow section curvature. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially perpendicular to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 4-5 of the inspection aperture "through which an inspection of the interior of the component is made possible", is not considered to define over Ohtomo, because a person's eye with or without the aid of a magnifier would be capable of the inspecting the interior of the component. In addition, and in conjunction with the recitation in claim 2, lines 1-2 of the inspection aperture being dimensioned to enable the introduction of a borescope, these limitations are a function of the size the borescope, and the size of the borescope would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Claims 1-2, 3/1, 3/2, 4/3/1, and 4/3/2 are rejected under 35 U.S.C. 102(b) as being anticipated by Glezer 5,603,606 (figures 1-5). Note the component 114 of a fluid flow machine, comprising plural cooling channels 166, 168, 170 for passage of a cooling medium, with the

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cooling channels comprising at least one curved flow section 168/170/174, with an inspection aperture 178 through which an inspection of the interior of the component is made possible, with the inspection aperture being arranged essentially in a direction tangentially to the curved flow section curvature. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially parallel to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 4-5 of the inspection aperture "through which an inspection of the interior of the component is made possible", is not considered to define over Glezer, because a person's eye with or without the aid of a magnifier would be capable of the inspecting the interior of the component. In addition, and in conjunction with the recitation in claim 2, lines 1-2 of the inspection aperture being dimensioned to enable the introduction of a borescope, these limitations are a function of the size the borescope, and the size of the borescope would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Claims 1-2, 3/1, 3/2, 4/3/1, and 4/3/2 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 64-66,401 (figures 1-2). Note the component 1 of a fluid flow machine, comprising plural cooling channels 12, 15, 18 for passage of a cooling medium, with the cooling channels comprising at least one curved flow section 15/18, with an inspection aperture (near 18) through which an inspection of the interior of the component is made possible, with the inspection aperture being arranged essentially in a direction tangentially to the curved

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flow section curvature. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially parallel to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 4-5 of the inspection aperture "through which an inspection of the interior of the component is made possible", is not considered to define over the Japanese Patent, because a person's eye with or without the aid of a magnifier would be capable of the inspecting the interior of the component. In addition, and in conjunction with the recitation in claim 2, lines 1-2 of the inspection aperture being dimensioned to enable the introduction of a borescope, these limitations are a function of the size the borescope, and the size of the borescope would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Claims 1-2, 3/1, 3/2, 5/3/1, and 5/3/2 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee 5,797,726 (figures 1-2). Note the component 14 of a fluid flow machine, comprising plural cooling channels 30, 32 for passage of a cooling medium, with the cooling channels comprising at least one curved flow section (in line with aperture 46) adjacent the blade platform 16, with an inspection aperture 46 through which an inspection of the interior of the component is made possible, with the inspection aperture being arranged essentially in a direction tangentially to the curved flow section curvature. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially

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perpendicular to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 4-5 of the inspection aperture "through which an inspection of the interior of the component is made possible", is not considered to define over Lee, because a person's eye with or without the aid of a magnifier would be capable of the inspecting the interior of the component. In addition, and in conjunction with the recitation in claim 2, lines 1-2 of the inspection aperture being dimensioned to enable the introduction of a borescope, these limitations are a function of the size the borescope, and the size of the borescope would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Claims 1-2, 3/1, 3/2, 5/3/1, and 5/3/2 are rejected under 35 U.S.C. 102(b) as being anticipated by the brochure "Air-Cooling of Gas Turbine Blades (figure 2, top and bottom righthand blades). Note the unnumbered component of a fluid flow machine, comprising plural unnumbered cooling channels for passage of a cooling medium, with the cooling channels comprising at least one curved flow section adjacent the unnumbered blade platform, with an unnumbered inspection aperture through which an inspection of the interior of the component is made possible, with the inspection aperture being arranged essentially in a direction tangentially to the curved flow section curvature. The component is a rotating blade for a turbine, with the inspection aperture being arranged in the neighborhood of the blade tip. The inspection aperture is arranged at the blade tip and has its longitudinal axis essentially perpendicular to the horizontal axis of the fluid flow machine. The recitation in claim 1, lines 4-5 of the inspection aperture "through which an inspection of the interior of the component is made possible", is not

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considered to define over the brochure, because a person's eye with or without the aid of a magnifier would be capable of the inspecting the interior of the component. In addition, and in conjunction with the recitation in claim 2, lines 1-2 of the inspection aperture being dimensioned to enable the introduction of a borescope, these limitations are a function of the size the borescope, and the size of the borescope would determine whether or not it would be able to be introduced into the inspection aperture. A miniaturized borescope have a tiny diameter would be capable of being introduced into the inspection aperture.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (703)-308-2638. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (703) 308-1044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V. June 18, 2004 Christopher Verdier Primary Examiner Art Unit 3745

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